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# BREVET D'INVENTION

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## Plaque de four support de coquillages.

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*(Brevet d'invention dont la délivrance a été ajournée en exécution de l'article 11, § 7, de la loi du 5 juillet 1844, modifiée par la loi du 7 avril 1902.)*

Il est connu d'utiliser pour la dégustation de coquillages des assiettes comportant des évidements permettant de séparer ces coquillages les uns des autres.

Il est également connu de prévoir de telles assiettes ou des plats de forme différente, mais comportant également des évidements pour la cuisson des escargots, des moules et des palourdes notamment.

Toutefois, même lorsqu'il s'agit de dispositifs destinés à être mis dans un four, ces dispositifs se placent sur les plaques de four et en sont indépendants.

La présente invention dérive d'une idée similaire consistant à prévoir des évidements maintenant les coquillages et les empêchant de basculer pendant leur cuisson, mais se rapporte au produit industriel nouveau que constitue une plaque de four caractérisée par le fait qu'elle est munie d'emboutis présentant la forme d'un coquillage de grande taille, ces emboutis ayant un profil similaire à celui des coquillages qui doivent y être placés en vue d'être cuits au four, et étant de dimensions suffisantes pour pouvoir s'adapter à des coquillages de modules divers.

Les caractéristiques de la présente invention seront mieux comprises à la lecture de la description qui suit d'un mode de réalisation de plaque support de coquillages conforme à l'invention, ce mode de réalisation étant donné à titre d'exemple non limitatif et étant décrit en se référant au dessin annexé sur lequel :

La figure 1 est une vue en perspective d'un four ouvert, couvercle abattu et équipé d'une plaque support conforme à l'invention;

Et la figure 2 est une coupe verticale de ladite plaque-support suivant II-II de la figure 1.

On voit sur la figure 1 un four 1 muni d'une plaque-support 2 suivant l'invention, plaque prévue avec six emboutis visibles en 3 sur les figures 1 et 2.

On voit sur la figure 2 que, suivant la taille des coquilles 4 et 5 qui se logent dans lesdits emboutis, en l'espèce des coquilles Saint-Jacques dans le cas particulier du mode de réalisation décrit, elles font saillie plus ou moins par rapport au niveau supérieur de la tôle 2. La coquille 4 est en fait plus en saillie que la coquille 3.

Il est bien entendu que le nombre des emboutis 3 peut varier à volonté suivant le type des coquillages que l'on veut cuire au four, et que n'importe quelle autre disposition, par exemple en diagonale, peut être adoptée pour les emboutis précités.

On peut imaginer également que les plaques de tôle précitées puissent un jour être remplacées par des plaques plus épaisses en une matière susceptible de supporter la température du four et comportant dans l'épaisseur des évidements de forme comparable aux emboutis ménagés au-dessous du niveau supérieur de la plaque 2.

On peut également remplacer les évidements de la plaque 2 par des crevés de surface un peu inférieure.

D'autres changements, perfectionnements ou additions peuvent être encore apportés au mode de réalisation décrit, de même qu'on peut remplacer certains éléments par des éléments équivalents, sans altérer pour cela l'économie générale de l'invention.

RÉSUMÉ

La présente invention a pour objet le produit industriel nouveau que constitue une plaque de four, caractérisée par le fait qu'elle comporte un nombre approprié d'emboutis ayant un profil de coquillage et disposés de préférence de façon à occuper la surface minimum sur ladite plaque et à permettre de chauffer sur cette plaque le maximum de coquillages, et par le fait que le profil de ces emboutis est tel qu'ils puissent s'adapter à des coquillages de type déterminé mais de modules variables.

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**Prix du fascicule : 2 francs**

Pour la vente des fascicules, s'adresser à l'IMPRIMERIE NATIONALE, 27, rue de la Convention, Paris (15e).

FIG. 1

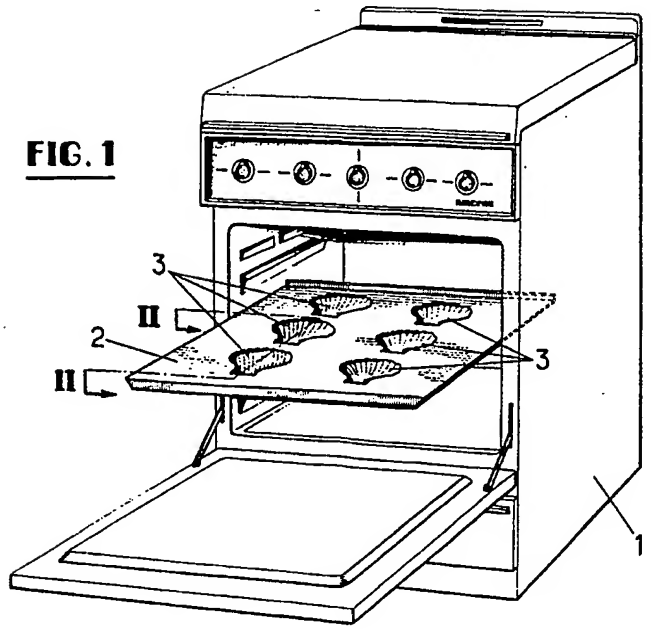
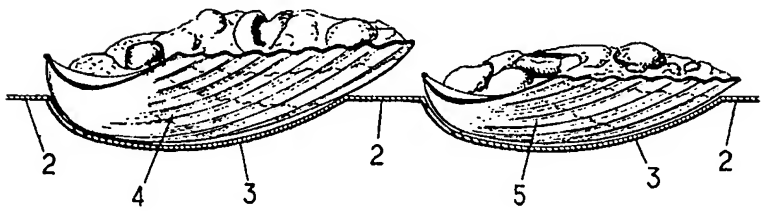



FIG. 2



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(54) **Compartmented trays**

(57) A compartmented aluminium tray (1) has a bottom (2), side walls (3, 4), and a peripheral flange (5) having a rolled edge (6) and to which a cover (9, Figure 3, not shown) is secured.

The tray is partitioned by webs (7, 8) which have convex portions at their ends where upper edges of the webs merge into the peripheral flange (5). The upper edge of each web has a depression (10) which, when the cover is applied, serves as a labyrinth seal to prevent transfer of material between compartments.

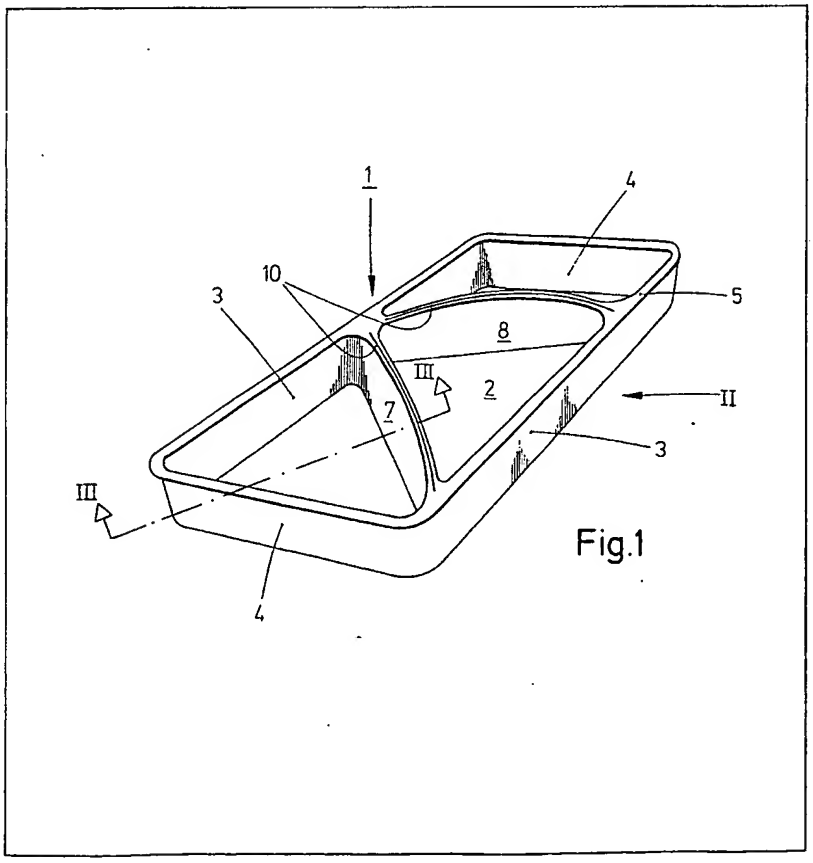


Fig.1

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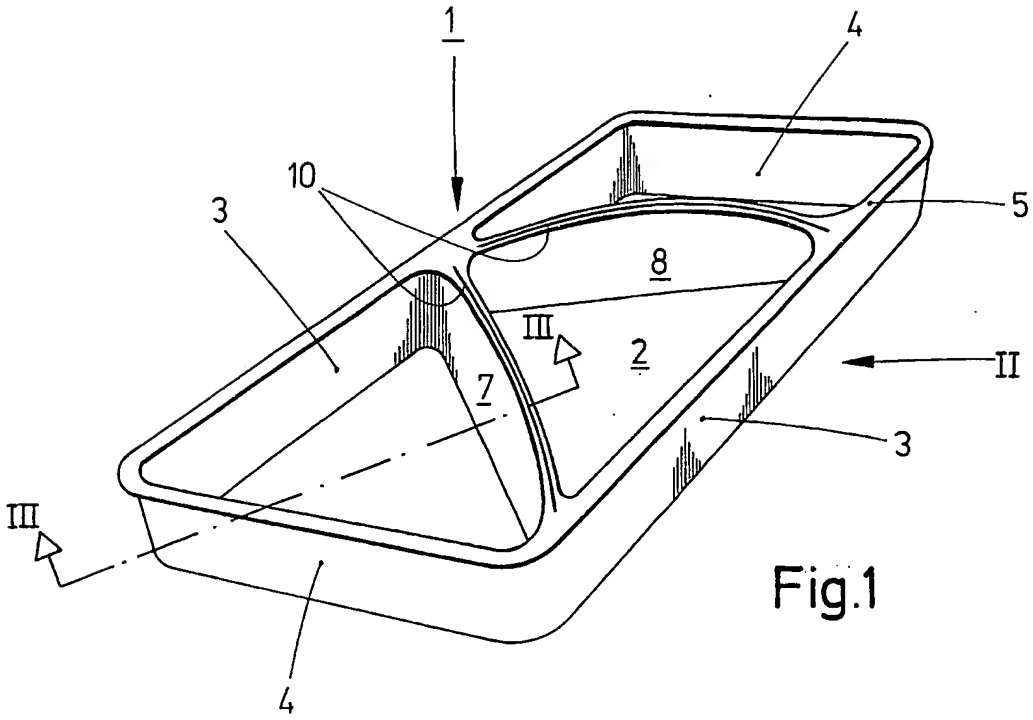


Fig.1

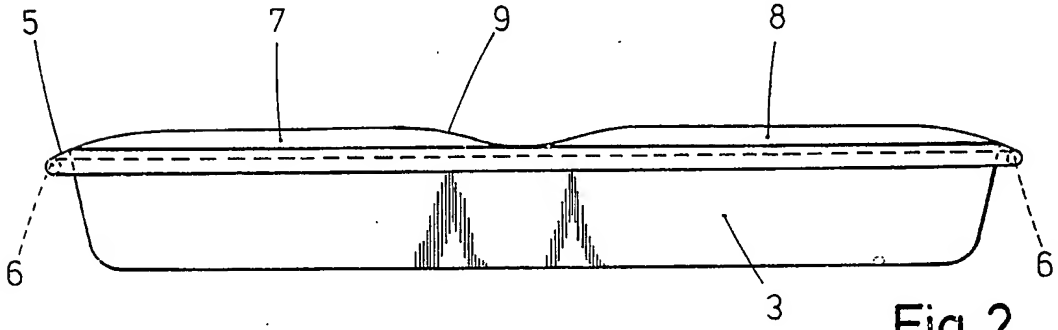


Fig.2

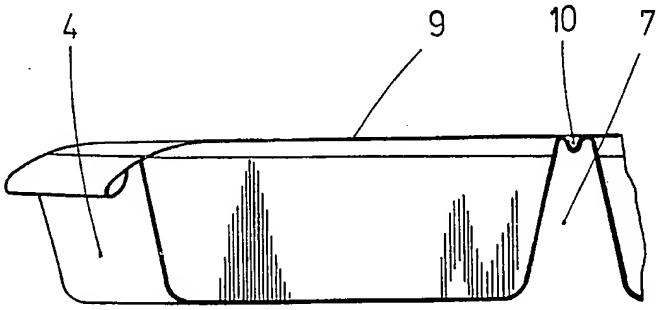


Fig.3

SPECIFICATION

**Container**

The invention relates to a container, in particular a set meal tray for prepared dishes, consisting of a peripheral flange circumscribing the opening of the container and preferably having a rolled edge, of a cover which can be secured to the peripheral flange of the container for the closure thereof and of at least one web serving for dividing the container into compartments, the ends of its upper edge merging in the peripheral flange and which in the direction of its centre rises progressively above the plane of the peripheral flange.

Containers of this kind are already known, for example, from German OLS 1 808 932 and United States Patent Specification 4 026 457. In these known containers, the peripheral flange is frequently stiffened by rolling over the edge of its periphery. In order to seal the container, the cover is bent round the rolled edge and if necessary likewise rolled over. The container space can be divided into one or more compartments or divisions by one or more webs for receiving individual parts of the set meal, the ends of the webs merging at their upper edge into the peripheral flange. By this means various foods can be then filled into the individual compartments, even if fluid foods such as thickened sauces or the like are to be included, cannot pass, as a result by shaking and vibration movements, for example during transportation, from one compartment into another of the filled set meal tray, are for this reason raised at their upper edge from the plane of the peripheral flange in the direction of the centre from the plane of the peripheral flange. By this means fluid-tight contact of the cover secured to the peripheral flange at the upper edge of the web and als fluid-tight sealing of the individual containers of the set meal tray are achieved.

However, in these known containers it follows from the simple and thus inexpensive measures for raising of the upper edge of the web from the ends merging with the peripheral flange in the direction of its centre in a rectilinear manner, so that the upper edge of the web in question has a somewhat roof-like shape. This has the result that during sealing of such a container, the corresponding cover is only tensioned by the web at its highest zone and is only pressed in the apex region to form a substantially droplet-tight seal on the upper edge of the web. With the conventional rectilinear shape of the upper edges of the webs the cover rests, however, with its underside, more or less as previously only loosely in contact with the upper edges of the web. Thereby the possibility arises moreover that during the transport vibration and shaking, the filling material can become transferred from one compartment with the other compartments, so that pleasure from the individual parts of the set meal is no longer to be expected.

It is certainly also known, to seal the cover both at the peripheral flange or the container rim as also at the upper edges of the webs. This measure is, however, comparatively costly. The sealing is effected in particular by use of pressure and heat, as a result of which both the peripheral flange of the container and also the individual webs must be supported from below. This has the result, that for a container with a different web construction a tool exchange is necessary at least in the under part. Thus, for example, in German Gebrauchsmuster 75 03 974 a container is described, in which the cover is sealed both to the peripheral flange and to the upper edges of the webs. Indeed, this does ensure tight sealing of the individual compartments or divisions, for the relevant set meal tray. The amount of work and the material use is, however, relatively high. In particular in the last-mentioned containers it is disadvantageous that on tearing off the cover, possibly a part of the filling material would be disturbed, since in accordance with this method the seals are only broken with some shaking.

In order to ensure a tight sealing of the compartments or divisions of a set meal tray the heights of the dividing webs of the set meal tray are increased along their whole lengths at the corresponding upper edge, the upper edge of each web could be constructed in its length direction with a progressively convex or other curved shape. By this arrangement the upper edge of the webs press over the whole length against the underside of the cover secured to the peripheral flange, so that good sealing is ensured. This is achieved, because during sealing of a container or a corresponding set meal tray the cover is positively tensioned over the upper edge of the web. Therefore the arrangements necessary for the sealing of the same as with the containers, in which the web does not extend beyond the plane of the peripheral flange.

In the containers or set meal trays sealed in this manner it has, however, also been shown that they cannot be stacked with certainty that the stack will be stable. The cover of such a container assumes substantially the shape of a flat skull-cap from which the plane base of a superimposed container can easily slide off. In particular it has been established, that as a result of the vibrations and agitating movements during transport, particles of the filling material are vibrated upwardly up to the apex region of the longitudinal curved shape of the upper edge of the web, and has the effect, in spite of the superimposed cover, of becoming transferred to the adjacent compartment or division, particularly if fluid foods or thickened sauces or the like are involved.

Accordingly, the invention is based on the problem, of so constructing a container or a set meal tray with features of the hereinbefore described general arrangement, that after sealing of the container or of the set meal tray with good stackability, the transfer of particles of filling material into adjacent compartments or divisions is prevented with certainty over the whole length of the upper edge of the web.

This problem is solved in accordance with the invention in that for the sealing arrangement of the cover on the upper edge of each web progressively convex or curved shape extending increase in height in the direction of the centre of the web is provided only at the zones lying close to the ends merging with the peripheral flange and that the web shape

between those parts of progressively increasing height is made rectilinear.

By means of these features that is provided with the exception of the peripheral region of the cover a plane and nevertheless well tensioned cover surface, of which the underside is applied firmly against the upper edge of the web and thereby adjacent compartments or divisions are sealed from one another. The tensioning of the cover is effected inevitably on sealing of the container. The filled and closed containers or set meal trays can now be safely stacked and packed conventionally in cartons, insulated containers or the like.

In order also with this kind of embodiment effectively to prevent with care the transfer of particles of filling material as a result of vibrational movements in particular during lengthy transportation and positively to prevent such transfer, according to the invention the construction is made so that the upper edge of each web has impressed therein at least one crease of an extent dependent upon its length.

The crease forms between one web and the corresponding cover a kind of labyrinth seal. Slippage for example of particles of filling material occurring during transport generated vibrational movements in spite of the tensioned cover can engage in a crease, and further movement will also cause further movement into the crease. With a predetermined build up of such filling material particles, a further seal is effected in conjunction with the closely spaced upper edge of the corresponding web applied against the cover, thus providing a barrier against further possible transfer of filling material particles, so that thereby there is prevented with certainty a transfer of filling material from one compartment into the adjacent compartment of a closed set meal tray even during long and rough transportation movements.

This feature is, however, not to be considered as limited only to the upper edge of webs by which a meal tray is divided into compartments or divisions. It can furthermore be applied to all packing containers for food materials in which it is required that there will be between the cover and the container a substantially fluid-tight closure. This can also apply, for example, between cover edges and the peripheral flange where the same problem arises. Having regard to the general use of the arrangement of at least one crease between cover and container, preferably for fluid or semi-fluid foods, independent protection is claimed for this feature.

The invention will be further explained hereinafter with reference to an embodiment by way of example. In the drawing there is shown:

*Figure 1* a perspective view of a set meal tray,

*Figure 2* a side view of the set meal tray in the direction of the arrow II in Figure 1 and

*Figure 3* a sectional view along the line III - III of Figure 1.

Container 1 serving as a set meal tray for ready prepared foods has in general a rectangular shape in plan and will preferably be manufactured by deep drawing of aluminium foil. Each container of this kind consists of a container bottom 2, side walls 3 and 4, a peripheral flange 5 extending outwardly and circumscribing the container opening as well as extending parallel to the container base, which at the outer edge can be provided with downwardly-extending rolled edge 6. In the embodiment by way of example the container space of the set meal tray is partitioned by two webs 7 and 8 dividing the container into three compartments or divisions. The webs 7 and 8 merge at the ends of the upper edge integrally into the peripheral flange 5 and have generally rounded upper edges. They rise progressively from their starting point at the peripheral flange in a convex or circular shape from the plane of the peripheral flange in the direction towards their centres. The progressively rising webs 7 and 8 extend, however, at their upper edge only in the zone at which their ends are integral with the peripheral flange and have a convex or circular shape. The lengths of these progressive increases can for example amount to 2 or 3 cms. Finally extending from both end regions, the upper edge of each web 7 and 8 extends rectilinearly and parallel to the container base 2. This construction ensures a fully-sealed arrangement of the cover on the upper edge of the webs, since during sealing of the cover of the container or the set meal tray it is bent around the rolled edge 6 and if necessary also rolled around it. Furthermore in the closed condition of the container or the set meal tray the peripheral flange 5 with the rolled edge 6 is bent downwardly in an inclined direction and thereby the cover is further tensioned. The cover now lies securely on the peripheral flange 5 and on the upper edges of the webs 7 and 8 so that the three container compartments are sealed outwardly and from one another.

In order in all unfavourable circumstances to ensure the complete sealing of the cover of containers preferably filled with fluid or semi-fluid foods even with long and rough transportion there is provided in the upper edge of each web 7 or 8 at least one crease 10 extending along its length. Preferably such a crease 10 has a semi-circular peripheral shape. It acts as a substantially labyrinth type seal and accommodates particles of filling material, which as a result of continual agitating movements which can arise during tough transportation slide upwards and are vibrated below the tensioned cover into the crease 10. In this way, moreover, a barrier is provided and prevents further filling material particles following this path, so that by the provision of at least one crease 10 in the upper edge of the webs 7 and 8 a substantially fluid-tight seal is achieved both from directions of the compartments or divisions of a meal tray.

It will be obvious that the arrangement with at least one crease should not be limited to the provision of a crease in the upper edge of the container space of a set meal tray with dividing webs. This feature has furthermore general importance and can be used generally, where between a container of aluminium foil and for example a cover of the same material there must be provided a seal between the cover of the same work material.

CLAIMS

1. A container, in particular a set meal tray for ready prepared foods, comprising a peripheral flange surrounding the opening of the container, and preferably having a rolled rim, a cover secured to the peripheral flange during sealing and at least one web for sealing with the face of the cover serving to divide the container into compartments, merging at its ends at its upper edge into the peripheral flange and progressively increasing in height in the direction towards its centre above the plane of the peripheral flange, characterised in that for sealing of the cover (9) on the upper edge of each web (7 or 8) of which the progressively convex or other circular shape increases in the longitudinal direction towards the centre only provided at the ends merging with the peripheral flange (5) and that the length of the web between these progressively increasing end regions is constructed with a substantially straight line.

2. A container, in particular a set meal tray for ready prepared foods, consisting of a peripheral flange preferably with a rolled rim defining the opening of the container, a cover secured during sealing to the peripheral flange and the webs of progressively increasing height in the direction towards the centre of the corresponding web from ends merging into the peripheral flange and serving together to provide effective sealing of the cover, characterised in this that in the upper edge of each web (7 or 8) has at least one crease (10) extending along the web length.

3. A container substantially as hereinbefore described with reference to the accompanying drawings.

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